

Remarks

The Office Action mailed March 26, 2007, has been carefully reviewed and the following remarks have been made in consequence thereof.

Claims 1-20 are pending in this application. Claims 1, 8, 9, 14, 15, and 20 are rejected. Claims 2, 3, 10, and 16 are objected to. Claims 4-7, 11-13, and 17-19 have been withdrawn.

The rejection of Claims 1, 8, 9, 14, 15, and 20 under 35 U.S.C. 102(a) as being anticipated by Hellat et al. (U.S. Pat. No. 6,546,729) is respectfully traversed.

Hellat describes a damper arrangement for reducing combustion-chamber pulsations generated inside a gas turbine (1). The gas turbine (1) includes a combustion chamber (12) that is surrounded by a turbine housing (3). Burners (6) extend through openings (5a) defined in the turbine housing (3). Damping elements (7) are also inserted through openings (5b) defined in the turbine housing (3). The damping elements (7) can be tuned during operation of the gas turbine (1) via a tuning device (15). As such, the damping volume can be adapted directly to thermoacoustic interference caused by the operation. Notably, Hellat does not describe nor suggest coupling an anti-resonant frequency system to a combustor wherein the anti-resonant frequency system includes a substantially hollow bleed manifold.

Claim 1 recites a method for operating a gas turbine engine including a combustor that includes a premixer assembly and a plurality of damper tubes, wherein the method comprises "coupling an anti-resonant frequency system to a combustor including a premixer assembly and a plurality of damper tubes, wherein the anti-resonant frequency system includes a substantially hollow bleed manifold...."

Hellat does not describe nor suggest a method for operating a gas turbine engine, including a combustor that includes a premixer assembly and a plurality of damper tubes, as is recited in Claim 1. Specifically, Hellat does not describe nor suggest coupling an anti-resonant frequency system having a substantially hollow bleed manifold and a plurality of damper tubes to a combustor. Rather, in contrast to the present invention, Hellat describes a

damper arrangement wherein damping elements inserted through openings defined in a turbine housing can be tuned during operation of the gas turbine via a tuning device, to enable the damping volume to be adapted directly to thermoacoustic interference caused by the operation. Accordingly, for at least the reasons set forth above, Claim 1 is submitted to be patentable over Hellat.

Claims 2, 3, and 8 depend, directly or indirectly, from independent Claim 1. When the recitations of Claims 2, 3, and 8 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2, 3, and 8 likewise are patentable over Hellat.

Claim 9 recites a combustor system for a gas turbine engine wherein the system comprises "a premixer assembly . . . a plurality of damper tubes . . . an anti-resonant frequency system coupled to said plurality of damper tubes, said anti-resonant frequency system configured to adjust the anti-resonant frequency of said damper tubes until the anti-resonant frequency of said damper tubes is approximately equal to a resonant frequency of the combustor . . . said anti-resonant frequency system comprising a substantially hollow bleed manifold configured to receive a first quantity of air from said combustor."

Hellat does not describe nor suggest a combustor system for a gas turbine engine as is recited in Claim 9. Specifically, Hellat does not describe nor suggest coupling an anti-resonant frequency system having a substantially hollow bleed manifold configured to receive a first quantity of air from the combustor and a plurality of damper tubes to a combustor. Rather, in contrast to the present invention, Hellat describes a damper arrangement wherein damping elements inserted through openings defined in a turbine housing can be tuned during operation of the gas turbine via a tuning device, to enable the damping volume to be adapted directly to thermoacoustic interference caused by the operation. Accordingly, for at least the reasons set forth above, Claim 9 is submitted to be patentable over Hellat.

Claims 10 and 14 depend from independent Claim 9. When the recitations of Claims 10 and 14 are considered in combination with the recitations of Claim 9, Applicants submit that dependent Claims 10 and 14 likewise are patentable over Hellat.

Claim 15 recites a gas turbine engine, wherein the gas turbine engine comprises “a compressor . . . a turbine . . . a combustor system coupled between said compressor and said turbine . . . said combustor system comprising . . . a plurality of damper tubes . . . an anti-resonant frequency system coupled to said plurality of damper tubes, said anti-resonant frequency system configured to adjust the anti-resonant frequency of said damper tubes until the anti-resonant frequency of said damper tubes is approximately equal to a resonant frequency of the combustor . . . said anti-resonant frequency system comprising a substantially hollow bleed manifold configured to receive a first quantity of air from said combustor.”

Hellat does not describe nor suggest a gas turbine engine as is recited in Claim 15. Specifically, Hellat does not describe nor suggest coupling an anti-resonant frequency system having a substantially hollow bleed manifold configured to receive a first quantity of air from the combustor and a plurality of damper tubes to a combustor. Rather, in contrast to the present invention, Hellat describes a damper arrangement wherein damping elements inserted through openings defined in a turbine housing can be tuned during operation of the gas turbine via a tuning device, to enable the damping volume to be adapted directly to thermoacoustic interference caused by the operation. Accordingly, for at least the reasons set forth above, Claim 15 is submitted to be patentable over Hellat.

Claims 16 and 20 depend from independent Claim 15. When the recitations of Claims 16 and 20 are considered in combination with the recitations of Claim 15, Applicants submit that dependent Claims 16 and 20 likewise are patentable over Hellat.

For at least the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1, 8, 9, 14, 15 and 20 be withdrawn.

Claims 2 and 3 were objected to, but were indicated as being allowable if rewritten in independent form including all of the limitations of the base claim. Claims 2 and 3 depend,

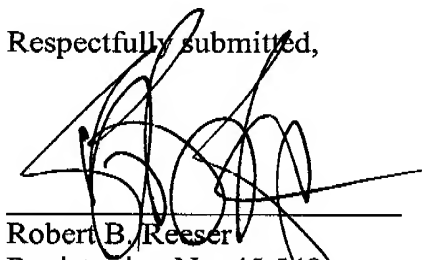
directly or indirectly, from Claim 1 which is submitted to be in condition for allowance. When the recitations of Claims 2 and 3 are considered in combination with the recitations of Claim 1, Applicants respectfully submit that Claims 2 and 3 are likewise in condition for allowance.

Claim 10 was objected to, but was indicated as being allowable if rewritten in independent form including all of the limitations of the base claim. Claim 10 depends from Claim 9 which is submitted to be in condition for allowance. When the recitations of Claim 10 are considered in combination with the recitations of Claim 9, Applicants respectfully submit that Claim 10 is likewise in condition for allowance.

Claim 16 was objected to, but was indicated as being allowable if rewritten in independent form including all of the limitations of the base claim. Claim 16 depends from Claim 15 which is submitted to be in condition for allowance. When the recitations of Claim 16 are considered in combination with the recitations of Claim 15, Applicants respectfully submit that Claim 16 is likewise in condition for allowance.

In view of the foregoing remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Robert B. Reeser', is written over a horizontal line.

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